REMARKS

Claims 1-25 are pending. Claim 1 is amended to remove reference to a precursor to a gelling agent. Claim 21 is amended, and is supported by the specification as filed, for example, at page 3, lines 1-11. Claims 5, 7, and 21 are amended to correct a typographical error by changing "microsphere" to --microsphere-- for consistency. The specification is amended at pages 1 and 3 to correct typographical errors, and at page 17 to remove unnecessary sequence listings.

The application is objected to as failing to comply with Nucleic Acid Sequence Rules because no sequence listing was provided for the sequences set forth on page 17 of the application. Applicants herein amend page 17 to remove the table between lines 10 and 12, which table contains three probe sequences and three complimentary target sequences. Applicants submit that the removal of such sequences from the specification does not effect the integrity of Example 5, and that Example 5 is enabling for the subject matter disclosed therein without listing of the specific sequences acted upon. The sequences were exemplary only. Applicants submit the deletion of the table complies with requirements of the Nucleic Acid Sequence Rules by removing the sequences in question. Reconsideration and withdrawal of the requirement is believed to be in order.

Claims 1-18 and 21-25 have been rejected under 35 USC §102(b) as being anticipated by Walt et al. (WO 00/16101), referred to as "Walt A." For at least the following reasons, applicants traverse the rejection.

It is asserted in the Office Action that Walt A discloses a method of identifying nucleic acid samples comprising providing a microarray including a substrate coated with a composition of microspheres dispersed in a fluid containing a precursor to a gelling agent, wherein the microspheres are immobilized randomly on the substrate. The Advisory Action makes clear that the fluid in which the microspheres are dispersed in Walt A is considered to be a "precursor to a gelling agent." The Office Action states on page 3 ". . . the randomly mixed microspheres within a solution are dripped onto the substrate wherein upon evaporation of the solution, the solution holds them in place and

wherein the solution comprises solution such as Nafion, polyacrylamide or polyHEMA, page 22, lines 9-22."

Applicants note that the reference to a "precursor to a gelling agent" has been removed from all claims, thereby making this argument by the Patent Office moot. With regard to a "gelling agent," Applicants respectfully submit the Patent Office has misinterpreted Walt A. Walt A does not disclose or suggest a "gelling agent" as set forth by Applicants. As disclosed in Walt A at page 22, lines 9-22, the Nafion, or other recited polymers, is dripped over the microspheres after the microspheres are distributed on the substrate by solution coating, wherein the solution carrying the microspheres is evaporated before the Nafion is applied. The process of Walt A is set forth below with the accompanying text from Walt A, page 22, lines 9-22.

The microspheres are then placed in the wells 250 in step 276 according to a number of different techniques. ***The placement of the microspheres may be accomplished by dripping a solution containing the desired randomly mixed subpopulations of the microspheres over the distal end 212***, sonicating the bundle to settle the microspheres in the wells, and ***allowing the microsphere solvent to evaporate. . . . Microspheres may then be fixed*** into the wells 250 by ***using a dilute solution of sulfonated Nafion that is dripped over*** ~~the~~ end. ***Upon solvent evaporation, a thin film of Nafion was formed*** over the microspheres which holds them in place. . . . A similar approach can be employed with different polymers. For example, solutions of polyethylene glycol, polyacrylamide, or polyhydroxymethyl methacrylate (polyHEMA) can be used in place of Nafion, providing the requisite permeability to aqueous species. (emphasis added)

1) microspheres are deposited on the substrate in a first solution

2) the solvent of the first solution that carried the microspheres is evaporated

3) a *second* solution containing Nafion is dripped over the microspheres

4) the *second* solution is evaporated to form a Nafion film over the microspheres

As can be seen above, the solvent or fluid in which the microspheres are coated is evaporated. Thus, it can not be a precursor to a gelling agent as "precursor" is normally defined, that is, something which ***becomes*** a gelling agent, because it is removed by evaporation. The fluid in which the microspheres are coated also cannot be a gelling agent because it is evaporated. The only other possible "gelling agent" is the thin film dripped over the microspheres after the solvent is

evaporated. Nafion, or any other polymer mentioned as a thin film, is not incorporated into the solution carrying the microspheres, but is placed over the microspheres after they are dispersed in the wells of the substrate. Contrary to the interpretation of the Patent Office, the sentence: "Upon solvent evaporation, a thin film of Nafion was formed over the microspheres which holds them in place," refers to evaporation of the solution containing the Nafion, not the solution containing the microspheres. Walt A clearly teaches that the film-forming polymer is placed on the microspheres ***after*** the microspheres are already in place on the substrate and the fluid in which the microspheres were coated has been evaporated.

The claimed invention, as represented by independent claims 1 and 21, is directed to a method of identifying biological samples, wherein the method includes in part providing a microarray including a substrate having no preselected sites for association with micro-spheres, wherein the substrate is coated with a composition including a population of micro-spheres ***dispersed in a fluid containing a gelling agent*** and immobilized at random positions on the substrate. The material which immobilizes the micro-particles on the substrate, the gelling agent, is ***included in*** the fluid containing the micro-spheres. No additional step is needed to immobilze the micro-spheres, as is required in Walt A.

Walt A does not teach or suggest the subject matter of the claimed invention because Walt A does not teach or suggest inclusion of a gelling agent ***in*** the fluid containing the micro-spheres, as set forth in Applicants' claims. For at least the above reasons, reconsideration and withdrawal of the rejection under 35 USC §102(b) over Walt A are in order, and respectfully requested.

Claim 19 has been rejected under 35 USC §103(a) as being unpatentable over Walt et al. (WO 00/16101, "Walt A") in view of Walt et al. (US 2002/0172716 A1, "Walt B"). Claim 20 has been rejected under 35 USC § 103(a) as being unpatentable over Walt et al. (WO 00/16101, "Walt A") in view of Chang et al. (US 4,873,102). For at least the following reasons, Applicants traverse each of the rejections under 35 USC §103(a).

As discussed above, the primary reference of Walt A does not teach or suggest all of the features of the claimed invention, in particular, the use

of an immobilizing agent in the fluid composition including the micro-spheres. Neither Walt B nor Chang et al. overcome the deficiencies of Walt A. For at least the above reasons, reconsideration and withdrawal of the rejections of claims 19 and 20 under 35 USC §103(a) are in order, and are respectfully requested.

For at least the reasons set forth above, Applicants submit all of Claims 1-25 are in condition for allowance. Prompt and favorable action is respectfully requested.

Should the Examiner require anything further, or have any questions, the Examiner is asked to contact Applicants' undersigned representative.

Respectfully submitted,

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